

Prenatal Substance Exposure and Associated Factors: Inadequate Housing, Financial  
Problems, Domestic Violence, Foster Care, Adoption, Living Arrangements

Thesis

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## **Abstract**

When a woman uses drugs or alcohol during pregnancy, the fetus is exposed to the substances in utero. This causes extended hospital stays for infants, risks of complications, and extra challenges for new mothers. According to the National Center on Substance Abuse and Child Welfare, an estimated 15% of infants are affected by prenatal alcohol or illicit drug exposure. Prenatal substance exposure complicates pregnancies and possibly the ability for a mother to parent her infant. This warrants a report to Child Protective Services to ensure the child's safety. This study is an analysis of The National Child Abuse and Neglect Data System (NCANDS) Child File from the National Data Archive on Child Abuse and Neglect at Cornell University. Data from the year 2016 was analyzed. The population of interest is families that have a child who has been prenatally exposed to substances. This population is identified using four variables, Drug Abuse Child, Alcohol Abuse Child, Child Age at Report, and Child is a Victim on This Report, with Drug Abuse Child and/or Alcohol Abuse Child marked yes, Child Age at Report less than one, and Child is a Victim on This Report marked yes. This research project looks at families affected by prenatal drug or alcohol exposure in relation to domestic violence, financial problems, inadequate housing, foster care services, adoption services, and living arrangements. An analysis of these variables will provide a well-rounded view of the social issues prevalent within the population. This information will

be beneficial for Child Protective Service workers as well as Nurses and other professionals working in Neonatal Intensive Care Units where prenatal substance exposure is identified as well as identifying the social services that can be of help to families.

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## **Curriculum Vita**

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## **Fields of Study**

Major Field: Social Work

Minor Field: Substance Misuse and Addiction

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## **Chapter 1. Introduction**

### **Problem Statement**

According to the National Center on Substance Abuse and Child Welfare, an estimated 15% of infants are affected by prenatal alcohol or illicit drug exposure. Prenatal substance exposure results in an infant born to a mother using substances during pregnancy resulting in the infant dependent on drugs. This leads to extended hospital stays for infants, risks of complications, and extra challenges for new mothers. Prenatal substance exposure can come about through unplanned pregnancies; women who abuse substances are often at a high risk of sexual assault and increased risky sexual behaviors (Beynon, McVeigh, Leavey, & Bellis, 2008). These unexpected pregnancies often result in higher amounts of substance exposure during early pregnancy, when the fetus is most vulnerable. Women with a substance use disorder are unable to immediately quit using when they become aware of a pregnancy because of their substance dependency and addiction.

While not all parents who use substances then abuse or neglect their children, it is a notable risk factor (Mirick & Steenrod, 2016). Therefore, Child Abuse Prevention and Treatment Act (CAPTA) requires that health care providers report all infants identified as being prenatally exposed to substances to Child Protective Services (CPS). It is then

required that a safe care plan be put in place for these families. When Child Protective Services becomes involved with these families it is important they have a knowledgebase of the challenges these mothers and infants are likely to face. In Ohio, families with an infant prenatally exposed to substances will be referred to Help Me Grow. Help Me Grow is a program that provides pregnant women and new mothers with a home visitor to “empower parents with skills, tools, and confidence to nurture the healthy growth of their children” (Ohio Department of Health: Help Me Grow).

The youngest children are the most vulnerable. About 25% of children involved with Child Protective Services are age one or younger. For all victims age one and younger, 4.8% have been prenatally exposed to alcohol and 15.2% have been prenatally exposed to drugs. These young victims do not have a voice and are unable to protect themselves. They do not have any exposure to others outside of the immediate family who could advocate for the child.

### **Population**

The National Child Abuse and Neglect Data System (NCANDS) is a federally sponsored effort that annually collects and analyzes data on child abuse and neglect known to child protective services (CPS) agencies in the United States. The NCANDS Child File is case level data that includes information about the characteristics of the reports of abuse and neglect, the children involved, the types of maltreatment, the CPS findings, the risk factors of the child and the caregivers, the services provided, and the perpetrators.

This research project utilizes the NCANDS Child File from the year 2016. The population of interest will be identified using four variables, Drug abuse child and/or Alcohol abuse Child marked yes, Child Age of Report marked less than one, and Child is a Victim on the Report marked yes. Children under the age of one noted as drug dependent have been prenatally exposed to substances.

### **Research Question**

1. How are families affected by prenatal substance exposure associated with specific risk contributors, including domestic violence, financial problems, and inadequate housing?
2. How are families affected by prenatal substance exposure associated with foster care and adoption services?
3. What living arrangements are prevalent with families affected by prenatal substance exposure?

## **Chapter 2. Literature Review**

Women who use drugs and alcohol are at an increased risk of sexual assault and are more likely to engage in risky sexual behaviors, whether that be while under the influence or to obtain substances (Beynon, McVeigh, Leavey, & Bellis, 2008). This increases the risk of unplanned pregnancies in women who use substances. Drug use complicates pregnancies and the ability for a mother to parent her child. Therefore, when someone addicted to drugs becomes pregnant, child protective services and in some states, law enforcement can become involved in the case. The Child Abuse Prevention and Treatment Act requires health care providers to report prenatal substance exposure to Child Protective Services.

Drug treatment and prenatal care are important for the mother, however there are barriers to this treatment and care. These barriers include fear of consequences, childcare, transportation, and finding available and affordable treatment. Barriers to treatment are not the only factors affecting these women, “Women who use opioids illicitly during pregnancy often experience poverty, violence, poor nutrition, smoking, lack of prenatal care, and other social challenges” (Roper & Cox, 2017, p. 332).

### **Barriers to Treatment**

The first step for a woman seeking treatment is to determine what type of treatment she needs. A qualitative study by Scoyoc, Harrison, and Fisher titled “Beliefs

and Behaviors of Pregnant Women with Addictions Awaiting Treatment Initiation” discusses women’s knowledge and actions while considering treatment (2017). They discuss women’s desire for change and hesitancy to ask for help. Women use the internet to learn about the effects prenatal substance exposure has on the baby and to change their substance using behaviors. Stigma reduces the likelihood of women accessing care and treatment. “The research suggests that women are often making decisions based on the limited information they can find without disclosing their addiction” (Scoyoc & Fisher, 2017, p.77). Women’s fear of telling someone about their situation, being a pregnant addict, is a substantial barrier to treatment.

Women face the fear of consequences if they make themselves known as a woman who is pregnant and using illicit substances. Possible consequences include criminalization for drug use and possible child abuse. The fear of child protective services involvement and the possibility of losing their child keeps women from accessing treatment. Women do not want to be labeled as a “Bad Mother” before their child is even born (Dunkerley, 2017).

“Medicated assisted treatment is the use of FDA approved medication, in combination with, counseling and behavioral therapies to provide a whole-patient approach to the treatment of substance use disorders” (SAMHSA, 2015). Medicated assisted treatment, rather than continued opioid abuse or detox, is medically the safest option for both a woman and her fetus (Holbrook & Nguyen, 2015). Some women have a strong preference towards methadone or buprenorphine, however there is little difference in how they affect pregnancy. According to Mattocks, Clark, & Weinreb, there are many

factors that dictate a woman's decision about methadone maintenance treatment, including guilt, negative outcomes for their infant, and lack of obstetricians with experience treating pregnant women using methadone (2017). There are a limited number of treatment options for women who are both dependent on illicit substances and pregnant (Roper & Cox, 2017). Therefore, the limited number of treatment centers is a barrier itself for women seeking treatment.

Medicated assisted treatment is often not covered by insurance and is an expensive treatment program (Vashishtha, Mittal, & Werb, 2017). Many addicts have trouble affording treatment, and pregnant women preparing for motherhood have many other expenses making prioritizing treatment a challenge. However, there are existing programs working to overcome this barrier. Medicare and Medicaid can provide some coverage for drug and alcohol treatment. There are also some locally and state funded programs to serve those who cannot afford treatment. SAMHSA offers a grant specifically for agencies to provide residential treatment for pregnant and postpartum women.

### **Treatment for Mom with Child**

Not all mothers who use substances neglect or abuse their children (Roper & Cox, 2017). However, mothers who use illicit substances are at an increased risk of abusing or neglecting their children (Mirick & Steenrod, 2016). It has been found that mothers who use opioids tend to portray a more positive relationship with their children than mothers who abuse alcohol. (Slesnick, Feng, Brakenhoff, & Brigham, 2014). Treatment for the mother as she raises her new born child is a possibility. Just like the other options, there

are barriers to a successful mother-child relationship. In this situation, treatment would ideally begin before or during pregnancy.

When a pregnant woman is dependent on opioids, studies have shown that medicated assisted treatment, rather than abrupt unassisted withdrawal, is the safest option for the fetus (Holbrook & Nguyen, 2015). However, there is not an agreement on whether methadone or buprenorphine results in better outcomes for the woman and/or the fetus (Holbrook & Nguyen, 2015). A woman who begins medicated assisted treatment during pregnancy ideally would continue the treatment into motherhood. Parenting while maintaining sobriety through medicated assisted treatment comes with many unique obstacles. Time and cost are two strong barriers for women to continue treatment while raising a child; medicated assisted treatment often requires the patient to attend regular appointments at a treatment facility.

There is little information about mothers who use substances having support in the form of a co-parent or other family members. According to Bortili, Coles, & Dolan, this could be due to the predominance of single mothers in Child Protective Services cases (2002). The lack of support these mothers have complicates their access to care and treatment.

### **Criminalization**

The criminalization of drug use in the United States exists with the purpose of decreasing the amount of drug use. However, the criminalization of addiction has the side effect of creating barriers to treatment. As discussed above, women fear admitting their



situation and accessing treatment because of the consequences they may face. Drug use during pregnancy is criminalized as drug use and as child abuse, varying per state.

Tennessee is the only state that directly criminalizes the use of illegal substances during pregnancy (Kroeger, 2017). Other states utilize existing laws to prosecute women using during pregnancy, such as viewing drugs as a deadly weapon and charging assault. (Kroeger, 2017). A majority of states do not specifically criminalize prenatal substance use, but treat it as child abuse (Kroeger, 2017). In some states substance use during pregnancy is automatically considered child abuse with urine tests for newborns used as evidence (Roper & Cox, 2017). Roe vs Wade, a case that recognizes a woman's right to reproductive decisions, is often noted in cases of prenatal substance exposure for argument in favor of the mother (Kroeger, 2017). According to Roe vs Wade, women have autonomy over their bodies and are not required to carry a child when faced with an unplanned pregnancy. This is then used in cases of prenatal substance exposure to state that if a woman has autonomy to choose whether or not to carry a child, she has the autonomy to choose how to treat her body during pregnancy.

### **Adoption/Foster Care**

Not all children who are prenatally exposed to substances will be removed from their biological parents. However, parents who are addicted to substances are more likely than non-addicted parents to abuse or neglect their children (Mirick & Steenrod, 2016). When this is the case, Child Protective Services will become involved, children will be removed from the home and other placement will be considered, such as kinship care, foster care, and adoption.

Foster care allows for the child to be removed from the unsafe environment and placed into a temporary home. Unfortunately, this creates additional challenges for the child, “children placed in foster homes generally move from home to home, which exacerbates the problems of parent-infant bonding, sense of continuity and stability, and object constancy” (Burns & Catlin, 1997 p.73). This interrupts important time for bonding between mother and child. Foster parents face unique challenges when fostering infants, “Foster families who care for the infant population essentially function as “new families” for prolonged periods, including dealing with chronic lack of sleep and 24 hour a day infant care, managing birth family issues such as daily visiting and breastfeeding, and coordinating infant health care including immunizations, teething, infant development therapy, and nutrition” (Marcellus, 2010, p. 10).

Adoption is an option that allows for the child to have stability and a chance for parent-infant bonding. However, adoption is a long and difficult process, especially for infants who have health concerns such as being prenatally exposed to substances. In order for an adoption to take place, the birth parents must relinquish custody. The parents could voluntarily give up custody of their child. Or, if the child is with child protective services for 12-24 months, and the birth parents have not made progress towards rehabilitation, then parental rights will be terminated allowing the child to be adopted. Parents of prenatally exposed infants strongly benefit from community resources such as educational sessions and support groups (McCarty, Waterman, Burge, & Edelstein, 1999). These resources are specifically important when the families experience stress with the courts and welfare system.

## **Risk Contributors**

There are a number of risk contributors that increase a child's likelihood of experiencing maltreatment. These include any disabilities, mental illnesses, or substance use within the family. Low socioeconomic status, inadequate housing, domestic violence, and other forms of violence also increase a child's risk of maltreatment.

Adverse Childhood Experiences (ACEs) were studied at Kaiser Permanente's San Diego Health Appraisal Clinic in 1996. ACE's are stressful or traumatic events, such as abuse, neglect, or living in a violent environment during childhood. ACEs are associated with poor developmental outcomes for children. These outcomes include increased risk for substance abuse and addiction, mental health problems and suicide attempts, and high risk sexual behaviors, as well as developmental consequences (SAMHSA, 2017). The risk factors mentioned above are ACEs that could result in these outcomes. A study done by Sun, Patel, Rose-Jacobs, and colleagues found that "Mothers ACEs are significantly associated with their children's developmental risks" (2012, p. 882). This means that "adversity may transfer from one generation to the next in the form of abuse/neglect, housing risk, and poor socioemotional health" (Sun, Patel, & Rose-Jacobs, 2017, p. 883).

### **Mental Illness/Substance Use.**

It was found that mothers with a mental illness and involvement with child protective services often experience their first report within the child's first month of life (Hammond, Eastman, Leventhal, & Hornstein, 2017). This shows that health care providers and other reporters see a strong concern soon after the child's birth. Mental illness alongside of substance use dramatically increases the likelihood of CPS

involvement (Hammond, et al. 2017). This is not surprising as both mental illness and substance use creates challenges for a woman to meet her own basic needs, as well as a child's basic needs. Mothers with severe mental illnesses and/or substance use disorders are more likely to have inconsistency in their parenting resulting in poor attachment with their children. (Lewin, Abdrbo, & Burant, 2010). "Homes in which substance abuse is present have been described as chaotic, unpredictable, inconsistent, and emotional" (Mendoza, 2012, p. 33). This can be attributed to impulsive behaviors, poor decision making, and the unpredictable nature of substance use disorders. Mothers with mental illness, substance use disorders, and/or who have experienced violence are often a poor model for their children trying to learn healthy coping strategies (Thompson, 2007).

### **Domestic Violence.**

Women with mental illnesses or substance use disorders are at a higher risk of domestic violence (Lewin, Abdrbo, & Burant, 2010). Single women are at a higher risk of domestic violence than their married counterparts (Lewin, Abdrbo, & Burant, 2010). Violence towards any member of the household increases the likelihood of violence or neglect towards a child in the household. Children who have witnessed domestic violence during the first year of their life exhibit trauma symptoms and negatively impacted mother-child attachment (Lewin, Abdrbo, & Burant, 2010). Living with violence in the home, whether the violence is aimed toward the child or not, is a traumatic experience with long term consequences. Children exposed to domestic violence often portray aggressive and oppositional behaviors and are at an increased risk for mental illness

(Jouriles, McDonald, Slep, Heyman, & Garrido, 2008). Spousal abuse in a family increases the likelihood of child abuse.

### **Financial Problems/Inadequate Housing.**

Families living in poverty are associated with higher risks of child maltreatment. Financial instability creates stressors in a family system that could lead to the abuse or neglect of a child. These stressors include being unable to meet basic needs such as food and housing. Financial hardship could also cause an increased amount of time parents are out of the home attempting to make ends meet. Not only do families living in poverty have increased risk contributors, there is a decrease in protective factors. Families living in impoverished neighborhoods lack protective factors such as social capital and stability (Maguire-Jack & Font, 2017).

Homelessness and inadequate housing are also risk contributors to child maltreatment. A study by Fowler and colleagues found that inadequate housing with families involved with child protective services increases the likelihood that the children will be removed from the home (2013). Inadequate housing is often co-occurring with substance abuse, mental illness, and domestic violence, elevating a child's risk for abuse or neglect (Font & Warren, 2013).

### **Living Arrangements**

There is an overrepresentation of single mother families involved with Child Protective Services (Bortili, Coles, & Dolan, 2002). Single mothers face extra parenting challenges compared to two parent households. These challenges include higher levels of stress, childhood adversity, less perceived social supports, less interpersonal contact, and

less social involvement. Single mothers also are more likely to be poorer, younger, and less education (Mendoza, 2012).

Baum (2015) discusses the lack of father involvement in child welfare interventions. Father involvement, such as “encouraging the father to meet financial obligations, could help improve the child’s wellbeing” (2015, p. 419). It has also been stated that the presence of a man in the family may increase a child’s risk of abuse or neglect (Dufour, Lavergne, Larrivee, & Trocme, 2007). Dufour and colleagues emphasize that both the mother and the father need to be addressed in order to see the whole picture of a neglect case involved with CPS (2007).

Single mother families have been compared to two-parent families with either a biological father or a social father, such as a mother’s boyfriend. “Compared to two-biological-parent families, single mother families are likely to have higher rates of maltreatment given that on average, they have fewer resources (i.e., time and money) to allocate to parenting, and also experience higher levels of stress” (Berger, Paxson, & Waldfogel, 2009, p. 266). Living with a social father is thought to be a larger risk contributor than living with a biological father (Berger, Paxson, & Waldfogel, 2009).

### **Strengths/Needs**

Parent and child strengths can lead to a healthy family relationship. Protective factors exist at the individual, family, and community levels. Social support is a strong protective factor for a family. It is found that mothers who have strong social interactions and generally feel safe and in control of their lives are more likely to engage in activities

that benefit their children (Plant, Donohue & Holland, 2016). Mothers who feel independent and capable are empowered to take care of their children.

Children may display resilience across different developmental domains, such as social, emotional, academic, and health. Children with an easy temperament and self-regulation skills often find support from a caretaker (Sattler & Font, 2017).

Neighborhoods with high social cohesion have proven to be a protective factor against child maltreatment (Sattler & Font, 2017). For infants with a low birth weight, consistent positive parenting is a strong protective factor for positive child outcomes (Sattler & Font, 2017). This is difficult for children with prenatal substance exposure to achieve if foster care or adoption is a needed course of action. Additionally, the infant addiction may add to an increase in irritability and special needs of the child.

Many resources exist for struggling families, such as case management, counseling, employment services, housing services, and legal services. It is found that single mothers with substance use disorders utilize more casework and mental health services than their non-using counterparts (Mendoza, 2012). It may be difficult to acknowledge what resources a family needs because “Women greatly fear having their children removed permanently from their home so they may under-report any perceived family management problems” (Lewin, Abdrbo, & Burant, 2010, p. 132).

## **Chapter 3. Methods**

### **Research Goals**

This descriptive and exploratory study examines the association of specific risk factors, including domestic violence, financial problems, and inadequate housing and outcomes such as foster care and adoption with families affected by prenatal substance exposure. Since domestic violence, financial problems, and inadequate housing are important factors associated with child maltreatment and the prevention of child maltreatment; and foster care and adoption are frequent outcomes of child maltreatment associated with parental substance abuse, these associational variables will be included in the study.

### **Research Questions**

This study explores the following research questions:

1. How are families affected by prenatal substance exposure associated with specific risk contributors, including domestic violence, financial problems, and inadequate housing?
2. How are families affected by prenatal substance exposure associated with foster care and adoption services?
3. What living arrangements are prevalent with families affected by prenatal substance exposure?

### **The National Child Abuse and Neglect Data System**

This study utilizes The National Child Abuse and Neglect Data System (NCANDS). NCANDS is a federally sponsored effort that annually collects and analyzes



data on child abuse and neglect known to Child Protective Services (CPS) agencies in the United States. The NCANDS Child File is case level data that includes information about the characteristics of the reports of abuse and neglect, the children involved, the types of maltreatment, the CPS findings, the risk factors of the child and the caregivers, the services provided, and the perpetrators. This research project utilizes the NCANDS Child File from the year 2016 (HSS, 2016).

The Child File data submission contains case-level data. States submit case-level data by constructing an electronic file of child-specific records for each report of alleged child abuse and neglect that received a CPS response. Only completed reports that resulted in a disposition (finding) during the reporting year are submitted in each state's data file. The Child File is supplemented by agency-level aggregate statistics in a separate data submission called the Agency File. States are asked to submit both the Child File and the Agency File each year. The codebook shows the data elements included in a Child File submission, along with definitions, values, and technical guidance provided to states (HHS, 2016).

The National Child Abuse and Neglect Data System (NCANDS) is an initiative of the Children's Bureau in the Administration on Children, Youth and Families, the Administration for Children and Families within the U.S. Department of Health and Human Services (HHS). NCANDS was established as a voluntary, national data collection and reporting system to comply with 1988 Child Abuse Prevention and Treatment Act (CAPTA) amendments.

During 1996, CAPTA was amended again to require all states that receive funds from the Basic State Grant program to work with the Secretary of HHS to provide specific data, to the extent practicable, about children who had been maltreated. These data elements were incorporated into NCANDS. CAPTA was most recently reauthorized and amended during December 2010. The CAPTA Reauthorization Act of 2010 added new data collection requirements, which were subsequently added to NCANDS (HHS, 2016).

NCANDS data are published annually in the Child Maltreatment report. The most recent edition and other reports dating back to 1995 are available on the Children's Bureau website at <http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/childmaltreatment>.

A successful federal-state partnership is the core component of NCANDS. Each state designates one person to be an NCANDS state contact. The NCANDS state contacts from all 52 states work with the Children's Bureau and the NCANDS Technical Team to uphold the high-quality standards associated with NCANDS data. Webinars, technical bulletins, virtual meetings, email, and phone conferences are used regularly to facilitate information sharing and provision of technical assistance (HHS, 2016).

The NCANDS reporting year is based on the federal fiscal year (FFY), or October 1 through the following September 30, 2015-2016. The 50 states, the District of Columbia, and the Commonwealth of Puerto Rico submit data to NCANDS. In NCANDS, these reporting entities are referred to as the "52 states." The 52 states in NCANDS submit a data file called the Child File each year. The Child File contains case-level data (HHS, 2016).

In prior years, states that were not able to submit case-level data in the Child File submitted an aggregate data file called the Summary Data Component (SDC). Because all states now have the capacity to submit case-level data, the SDC was discontinued as of the 2012 data collection (HHS, 2016).

The following is an overview of the NCANDS data collection and submission cycle. States submit case-level data by constructing an electronic file of child-specific records for each report of alleged child abuse and neglect that received a CPS response. Each state's file only includes completed reports that resulted in a disposition (or finding) as an outcome of the CPS response during the reporting year. The data submission containing these case-level data is called the Child File. The Child File is supplemented by agency-level aggregate statistics in a separate data submission called the Agency File. The Agency File contains data that are not reportable at the child-specific level and are often gathered from agencies external to CPS. States are asked to submit both the Child File and the Agency File each year. Upon receipt of data from each state, a technical validation review is conducted to assess the internal consistency of the data and to identify probable causes for missing data. In some instances, the reviews concluded that corrections were necessary and the state was requested to resubmit its data. Once a state's case-level data are finalized, counts are computed and shared with the state. The Agency File data also are subjected to various logic and consistency checks (HHS, 2016).

The following is an overview of the child file. Each record in the Child File allows for information about a child associated with a report of alleged child abuse or neglect. All of the data elements in the record are grouped into these data sections:

- **Report Data** (fields 1–11) contains the two identifying fields (submission year and state ID) and general information about the report. The first identifying field for the record is the report ID. The second identifying field for the record is the child ID. All remaining fields in the report data section are attributes related to the report ID. If a report involves multiple children, the report data fields, with the exception of the child ID, are identical on each record containing the same report ID. For example, if there were three children in the report, the data in the entire report data section would be identical for all three child records, except for the three different child IDs.
- **Child Data** (fields 12–25) contains general information about the specific child in the record. All fields in this section are attributes related to the child ID.
- **Maltreatment Data** (fields 26–34) includes information about maltreatment types and maltreatment disposition levels. Up to four allegations of maltreatment are coded with the decision regarding the allegation. The maltreatment death field is also included in this section as it is a contributor in determining the child victim status.
- **Child Risk Factors** (fields 35–43) contains data about the child’s characteristics or environment that may place the child at-risk for maltreatment. This includes diagnosed disabilities, exposure to domestic violence, and other behaviors or problems (e.g., drug abuse).

- **Caregiver Risk Factors** (fields 44–55) contains data about the child’s caregiver characteristics or environment that may place the child at-risk for maltreatment. This includes domestic violence, substance abuse, financial problems and more.
- **Services Provided** (fields 56–85) contains information about services that are provided for the child or family. Post response services are reported to NCANDS if they were delivered between the report date (date the report was received) and up to 90 days after the disposition date. For services that were begun prior to the report date, if they continued past the report disposition date this would imply that the investigation or alternative response reaffirmed the need and continuation of the services, and they should be reported to NCANDS as post response services. Services that do not meet the definition of post response services are those that (1) began prior to the report date, but did not continue past the disposition date or (2) began more than 90 days after the disposition date.
- **Staff Data** (fields 86–87) contains identification information about the CPS worker and the CPS worker's supervisor who were associated with the child on the date of the report disposition.
- **Perpetrator Data** (fields 88–144) contains information about perpetrators of maltreatment. Up to three perpetrators per child may be reported. If the child was not found to be a victim of maltreatment, the perpetrator data section is left blank. The four perpetrator maltreatment fields for each perpetrator should be linked by the state to the four sets of maltreatment type and maltreatment disposition level fields reported for the child victim (fields 26–33).

- **Additional Fields** (fields 145–150) contains any new fields that were added to the Child File subsequent to its creation in 2001 (NCANDS Child File Codebook, 2016) (HHS, 2016).

The application process with the National Child Maltreatment Data System (NCANDS) Child File, FFY 2016 required licensing of the data and an agreement to secure protection of the data on a university computer with encryption and secure access. In the case of the survey, coercion was minimized through consent and freedom to refuse survey participation. The Ohio State University's Institutional Review Board (IRB) approved this study on December 15, 2017. The IRB approval for expedited review and a revision for survey script changes are available in Appendix A.

The population of interest has been identified within the data set utilizing four variables as noted in Table 1.

Population of Interest				
Variable #	Variable Title	Variable Name	Definition	Value
15	Child Age At Report	ChAge	Age, calculated in years, as of the date of the report of alleged child maltreatment	0: Under one year
36	Alcohol Abuse-Child	CdAlc	A compulsive use of or need for alcohol by the child. This element should include infants addicted at birth, or who are victims of Fetal Alcohol Syndrome, or who may suffer other disabilities due to the use of alcohol during pregnancy.	1: yes
37	Drug Abuse-Child	CdDrug	The compulsive use of or need for narcotics by the child. This element should include infants addicted at birth.	1: yes
146	Derived: Child is a Victim on This Report	RptVictim	IF any Mal1Lev through Mal4Lev has the value: 1 = Substantiated, or 2 = Indicated OR If MalDeath = 1 (Child died) THEN This value is 1 (True); Otherwise it is 0 (False)	1: yes

**Table 1: Population of Interest Variables (HHS, 2016)**

Six variables of interest were explored as associated with the population of interest variables. These variables are noted in Table 2.

Variables of Association				
Variable #	Variable Title	Variable Name	Definition	Value
24	Living Arrangements	ChLvng	The home environment, e.g., family or foster care, in which the child was residing at the time of the alleged incident of maltreatment. "Other" living arrangement includes substitute care homes/facilities.	1: married parents 2: Married parent and step parent 3: unmarried parents

				4: parent and cohabitating partner 5: both parents, marital status unknown 6: single parent, mother only 7: single parent, father only 8: single parent, mother & other adult 9: single parent, father & other adult 10: non-parent relative caregiver 11: non-relative caregiver 12: group home or residential facility 88: Other setting 99 Unknown
53	Domestic Violence	FCViol	Incidents of inter-spousal physical or emotional abuse perpetrated by one of the spouses or parent figures upon the other spouse or parent figure in the child victim's home environment.	1: yes 2: no 9: unknown or missing
54	Inadequate Housing	FCHouse	A risk factor related to substandard, overcrowded, unsafe, or otherwise inadequate housing conditions, including homelessness.	1: yes 2: no 9: unknown or missing



55	Financial Problem	FCMoney	A risk factor related to the family's inability to provide sufficient financial resources to meet minimum needs.	1: yes 2: no 9: unknown or missing
61	Foster Care Services	FosterCr	Services or activities associated with 24-hour substitute care for all children placed away from their parents or guardians and for whom the State agency has placement and care responsibility. Note: This field indicates that this service began or continued for the child in the report as a result of the CPS response to reported allegations. The service has been delivered between the report date and 90 days after the disposition date of the report. The service continued past the Report Disposition Date. A foster parent is an individual who provides a home for orphaned, abused, neglected, delinquent or disabled children under the placement, care or supervision of the State. The individual may be a relative or non-relative and need not be licensed by the State agency to be considered a foster parent.	1: yes 2: no 9: unknown or missing
66	Adoption Services	Adopt	Services or activities provided to assist in bringing about the adoption of a child.	1: yes 2: no 9: unknown or missing

**Table 2: Variables of Association (HHS, 2016)**

## Cramer's V

Cramer's V is a number between 0 and +1 that indicates how strongly two variables are associated. To explore the association between two categorical variables, the first option is the chi-square independence test. The chi-square independence test is used when there are 5 or more possible values for a variable. Many of variables in use, including, Child is a Victim on the Report, Drug Abuse Child, Alcohol Abuse Child, Financial Problems, Domestic Violence, and Inadequate Housing, only have 3 possible values: yes, no, or unknown. The chi-square independence test is also sensitive to large sample sizes; if the sample is large, small differences appear statistically significant. A significance level close to zero means that variables are very unlikely to be completely *unassociated* in some population. However, this does not mean the variables are strongly associated; a weak association in a large sample size may also result in  $p=0.000$ . The sample size in this study is 11,541. Therefore, a chi-square independence test would not give an accurate measure of association. A measure that does indicate the strength of association is Cramer's V.

Cramer's V is defined as:  $\varphi = \sqrt{\frac{\chi^2}{n}}$  where

- $\varphi$  denotes Cramer's V
- $\chi^2$  denotes Pearson's Chi-Squared
- $n$  denotes the sample size

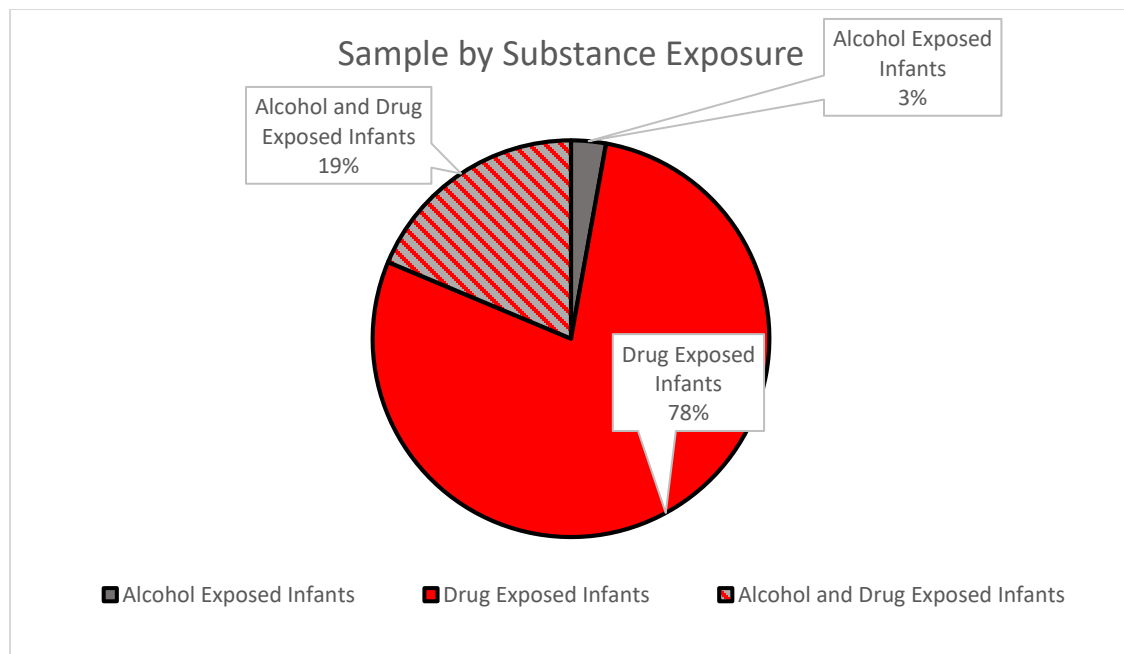
Cramer's V is used to show the strength of association between prenatal substance exposure and the variables of interest mentioned above. This study does not utilize

randomly sampled data, rather a very specific population. Cramer's  $V$  shows affect size based on a value between 0 and +1; a Cramer's  $V$  value of 0.3 shows a medium affect size. Conclusions cannot be drawn about causation, only association.

## Chapter 4. Results

### The Descriptive Sample

Of the total 4,191,742 maltreatment cases reported nationally to NCANDS in 2016, 11,541 met the criteria of alcohol and/or drug exposed victim under the age of one. 50% of the victims were male and 50% were female. 65.8% of the victims were White, 22.9% were Hispanic or Latino, 21.8% were Black or African American, 7.1% were American Indian or Alaskan Native, 1% were Asian, and 2.4% were undetermined. Of the 11,541 cases that met the criteria of alcohol and/or drug exposed victim under the age of one, 2,557 have been exposed to both drugs and alcohol, 327 have been exposed to just alcohol, and 9,057 have just been exposed to just drugs. This is shown in Figure 1.

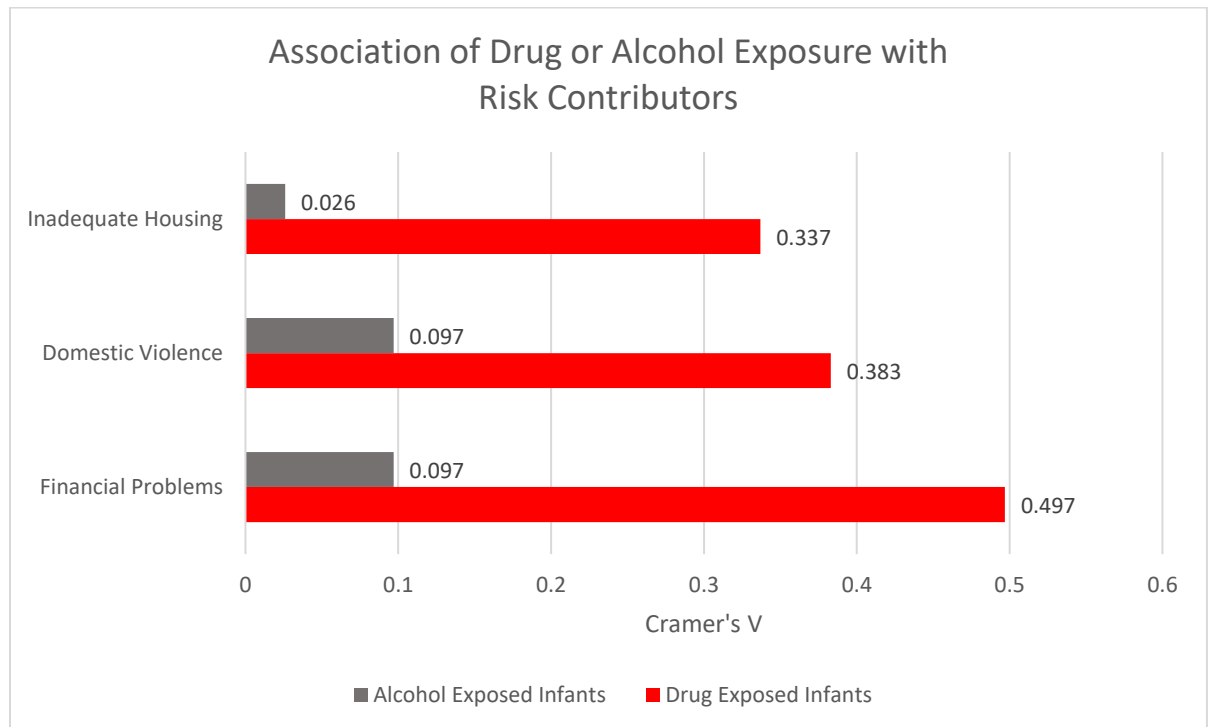


**Figure 1: Sample by Substance Exposure**

## Research Question 1

The first research question asks how are families affected by prenatal substance exposure associated with specific risk contributors, including domestic violence, financial problems, and inadequate housing?

A Cramer's V value of 0.3 is a medium strength of association. As shown in Figure 2, a weak association was found between alcohol exposed infants and inadequate housing (0.026), domestic violence (0.097), and financial problems (0.097). A strong association was found between drug exposed infants and these risk contributors: inadequate housing (0.337), domestic violence (0.383), and financial problems (0.489). The strongest association found was between drug exposed infants and financial problems, with a Cramer's V value of 0.497.

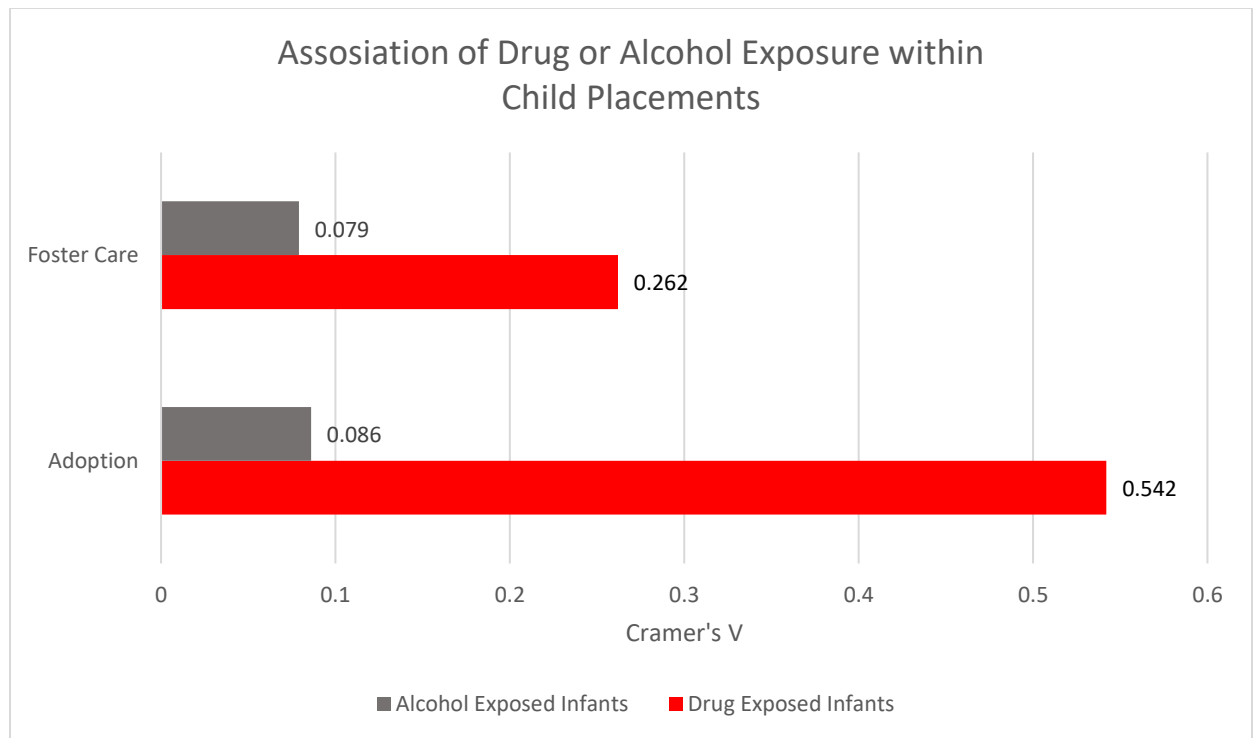


**Figure 2: Association of Drug or Alcohol Exposure with Risk Contributors**

## Research Question 2

The next research question asks how are families affected by prenatal substance exposure associated with foster care and adoption services?

Figure 3 shows the association of drug or alcohol exposure and foster care and adoption services. A weak association was found between alcohol exposed infants and both foster care services (0.079) and adoption services (0.086). A slightly weak association was found between drug exposed infants and foster care services (0.262). A very strong association was found between drug exposed infants and adoption services (0.542).

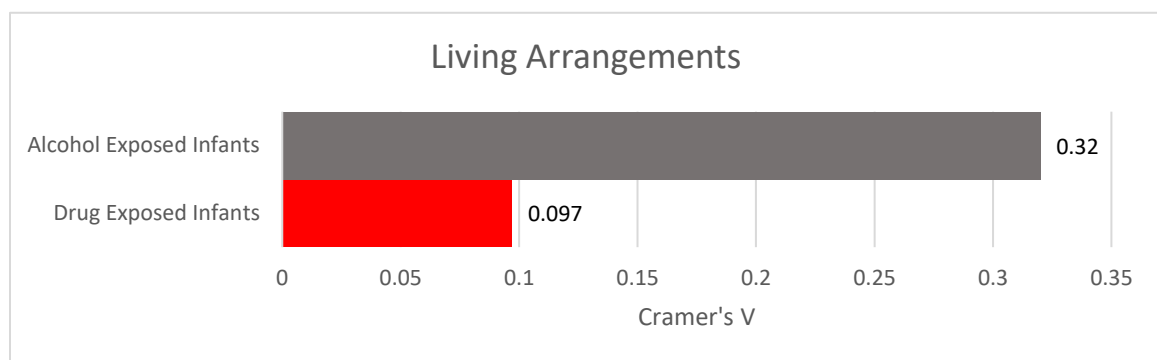


**Figure 3: Association of Drug or Alcohol Exposure within Child Placements**

### Research Question 3

The last research question asks what living arrangements are prevalent with families affected by prenatal substance exposure?

As shown in Figure 4, the association between drug exposed infants and living arrangements is very weak, with a Cramer's V value of 0.097. The association between alcohol exposed infants and living arrangements was much stronger with a Cramer's V value of 0.32. Only the association between alcohol exposed infants and living arrangements will be discussed further.

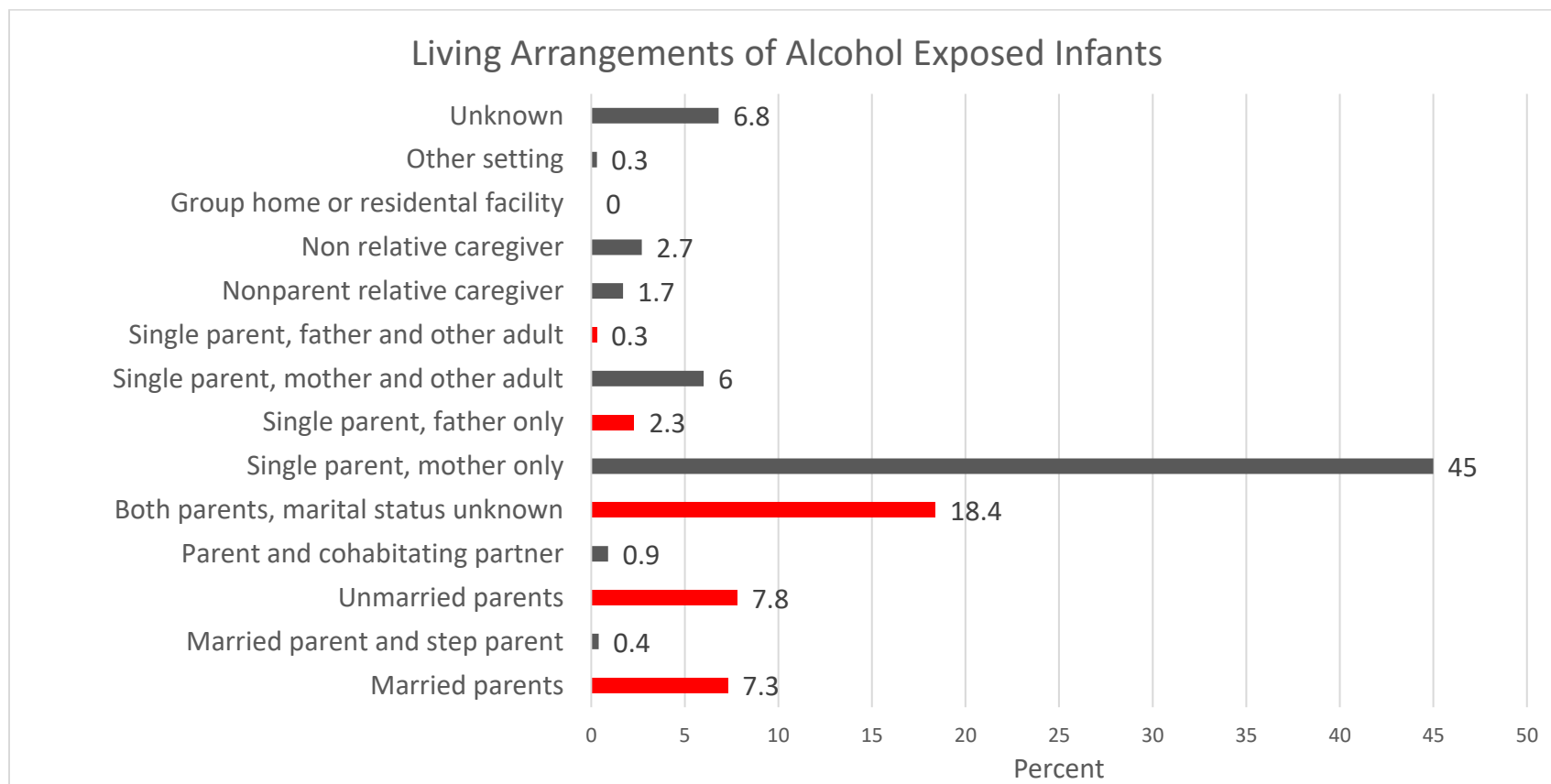


**Figure 4: Living Arrangements**

Living Arrangements are identified within the data set as one of the following: married parents, married parent and step parent, unmarried parents, parent and cohabitating partner, both parents marital status known, single parent mother only, single parent father only, single parent mother & other adult, single parent father& other adult, non-parent relative caregiver, non-relative caregiver, group home or residential facility, other setting, or unknown. Results of the association between alcohol exposed infants and living arrangements are shown in Figure 5. For infants exposed to alcohol, 45% of

families have a living arrangement of a single mother household and 36.1% of these families are known to have father involvement. For all families involved with CPS, 23.6% have a living arrangement of a single mother household and 30.7% have known father involvement. Known father involvement is determined by the number of families with one of the following living arrangements: married parents, unmarried parents, both parents marital status unknown, single parent father only, or single parent father & other adult.





**Figure 5: Living Arrangements of Alcohol Exposed Infants**

## **Chapter 5 Discussion**

### **Risk Contributors**

This data analysis found that families affected by prenatal drug exposure are more likely to be affected by inadequate housing, domestic violence, and financial problems than families affected by prenatal alcohol exposure. The strong difference in associations shows that these populations face different hardships. The information showing that these populations face different hardships encourages these populations to be researched and treated as separate populations. Conclusions cannot be drawn about whether these risk contributors are a precursor to prenatal substance exposure or if prenatal substance exposure is a precursor to inadequate housing, domestic violence, and financial problems. Knowing that there is a high association between families affected by prenatal drug exposure and these risk contributors gives child welfare workers a knowledge base of challenges this population is likely to face.

#### **Financial Problems.**

There is a strong association between financial problems and families affected by prenatal drug exposure. Financial instability increases the likelihood of child abuse or neglect due to stressors including an inability to meet basic needs such as food and housing. The increase in parental stress gives parents less time and less patience when parenting their children; leading to child abuse or neglect. Medicaid is an important

resource for families experiencing financial problems; healthcare is a basic necessity. The state of Ohio is currently looking to expand Medicaid, including adding a work requirement to eligibility criteria. This work requirement is aimed to decrease unemployment rates of Medicaid recipients. However, many fear that this will be another barrier people will face when seeking health care. More barriers will decrease the number of people who are able to access health care.

### **Inadequate Housing.**

Inadequate housing is a risk contributor that increases the likelihood of the child(ren) involved with Child Protective Services being removed from the home. There is a high association between families affected by prenatal drug exposure and inadequate housing. Housing is often the largest monthly expense a family faces. Families may find themselves homeless, staying with friends, turning to homeless shelters, or applying for section 8 housing. Wait lists for homeless shelters are often extreme, and safety is a concern for women and children. Section 8 housing vouchers often only subsidize the cost for rent. It could take over a year for the application process and waitlist before the recipient can begin looking for housing that accepts the voucher. Increasing accessibility to housing for low income families could support keeping families together.

There are also non-government organizations with the goal of decreasing inadequate housing. For example, Habitat for Humanity is an international organization that supports low income families achieve homeownership. Homeownership has some benefits over renting, including a sense of independence and pride. Habitat for Humanity's mission encourages self-determination as they have the opportunity to make

decisions about their future home and are a part of building process (Habitat for Humanity, 2018). New families affected by prenatal substance exposure would benefit from this type of program. Having a stable affordable home eliminates a huge stressor in many people's lives.

### **Domestic Violence.**

Domestic violence is highly associated with families affected by prenatal drug exposure. Violence towards any member of the household increases the likelihood of violence or neglect towards a child in the household. Federal funding for the support of domestic violence victims and their dependents comes from the Family Violence Prevention and Services Act. These supports include domestic violence hotlines and shelters available 24/7 across the United States. These services are available, but due to the nature of domestic violence they are underutilized. Increasing education about healthy relationships, and how relationships effect one's children, could increase the use of these services.

### **Adoption/Foster Care**

Differences were found between families affected by prenatal alcohol exposure and prenatal drug exposure and their association with adoption services and foster care services. Very weak associations were found between alcohol exposed infants and both foster care and adoption services. There is a moderate association between infants exposed to drugs and foster care services. Child welfare agencies often experience a shortage of foster homes, especially during the opioid epidemic. Infants prenatally exposed to drugs must be placed in a therapeutic foster home with foster parents who

have received a higher level of training. Therefore, there are a limited number of placements for children prenatally exposed to substances. This information reflects the challenges child welfare agencies face while placing children in foster homes.

Adoption was found to be highly associated with drug exposed infants. *The Adoption and Safe Families Act of 1997* gives parents involved with Child Protective Services twelve to twenty-four months to create a safe living environment for their children before custody is revoked and children can be adopted by another family. The association between drug exposed infants and adoption services tells us that this population may struggle to meet the criteria or needs more time to meet the criteria necessary to keep custody of their children. Those recovering from substance dependency often experience relapse, especially early in the recovery process. The timeline for addiction recovery is not congruent with the timeline for family reunification. This could be a barrier to achieving the requirements to maintain custody of their children.

### **Living Arrangements**

For infants exposed to alcohol, 45% of families have a living arrangement of a single mother household. For all families involved with CPS, 23.6% have a living arrangement of a single mother household. Families involved with Child Protective Services are disproportionately single mother households, and this is magnified when looking at families affected by prenatal substance exposure. Single mother households face additional challenges compared to two parent household, such as a single income and less social support. For infants exposed to alcohol, 36.1% of these families are

known to have father involvement, compared to 30.7% of all families involved with CPS. This only includes fathers that have been marked as part of the household. NCANCS data does not include information about non-household relationships. While single motherhood has many challenges, father involvement is not always positive father involvement. Fathers could possibly be the perpetrator of child abuse or domestic violence.

### **Limitations**

There are a few noteworthy limitations to this research project. Both the reliability and validity are concerns with the data set. The National Child Abuse and Neglect Data System collects data from every county in the United States. Therefore, insuring consistency in reporting is a challenge. Each of the 52 states collect data with their own data system, therefore variables may not always be defined the same way. Some states omitted specific variables because the information was not well collected in the agency. These missing variables could be skewing the national view of the data set. Another limitation is that only nominal variables were analyzed for this study. This only allows for conclusions to be made about association, not about causation.

### **Further Research**

There are many directions this research could continue in the future. The NCANCS data set includes data dating back to 1995. Analyzing the change in association between families affected by prenatal substance exposure over time could be compared to what agency policies and programs were in place during those times. This would show both outcomes to policies and programs as well as the change in need of the

population over time. The difference in associations with the variables of interest could also be explored geographically, we know that different areas of the United States face different challenges. The NCANCS data only categorizes substances as either alcohol or drug. Further research could explore how different substances affect families in different ways.

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*Adolescent Social Work Journal, 34, 1, 65-7*

## Appendix A. IRB Approval



### Behavioral and Social Sciences Institutional Review Board

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1900 Kenny Road  
Columbus, OH 43210-1063

Phone (614) 688-8457  
Fax (614) 688-0366  
<http://www.osu.edu>

12/15/2017

Study Number: 2017B0548

Study Title: Prenatal Substance Exposure: Family Functioning, Strengths, and Needs

Type of Review: Initial Submission

Review Method: Expedited

Date of IRB Approval: 12/13/2017

Date of IRB Approval Expiration: 12/13/2018

Expedited category: #5, #7

Dear Linda Helm,

The Ohio State Behavioral and Social Sciences IRB **APPROVED** the above referenced research.

In addition, the following were also approved for this study:

- Children
- Waiver of Assent
- Waiver of Parental Permission
- Waiver of Consent Process

As Principal Investigator, you are responsible for ensuring that all individuals assisting in the conduct of the study are informed of their obligations for following the IRB-approved protocol and applicable regulations, laws, and policies, including the obligation to report any problems or potential noncompliance with the requirements or determinations of the IRB. Changes to the research (e.g., recruitment procedures, advertisements, enrollment numbers, etc.) or informed consent process must be approved by the IRB before implemented, except where necessary to eliminate apparent immediate hazards to subjects.

This approval is issued under The Ohio State University's OIRP Federalwide Assurance #00000378 and is valid until the expiration date listed above. **Without further review, IRB approval will no longer be in effect on the expiration date.** To continue the study, a continuing review application must be approved before the expiration date to avoid a lapse in IRB approval and the need to stop all research activities. A final study report must be provided to the IRB once all research activities involving human subjects have ended.

Records relating to the research (including signed consent forms) must be retained and available for audit for at least 5 years after the study is closed. For more information, see university policies, [Institutional Data](#) and [Research Data](#).

Human research protection program policies, procedures, and guidance can be found on the [OIRP website](#).

A handwritten signature in black ink, appearing to read 'Dan R. Strunk'.

Daniel Strunk, PhD, Chair  
Ohio State Behavioral and Social Sciences IRB

